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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/668,216	09/24/2003	Yasuhiro Yoneda	1422-0603P	1568

2292 7590 05/16/2006

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EXAMINER
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MARCHESCHI, MICHAEL A

ART UNIT	PAPER NUMBER
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1755

DATE MAILED: 05/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/668,216

Applicant(s)

YONEDA ET AL.

Examiner

Michael A. Marcheschi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/28/06 has been entered.

(1) Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 1 020 501 alone or in view of Liu et al. and/or Ina et al. for the same reasons set forth in the previous office action which are incorporated herein by reference.

(2) Claims 1-4 and 6-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 1 036 836 alone or in view of Liu et al. and/or Ina et al. for the same reasons set forth in the previous office action which are incorporated herein by reference.

Applicant's arguments filed 2/28/06 have been fully considered but they are not persuasive.

With respect to rejection (1) above, applicants appear to argue that EP 501 only discloses fumed silica (see examples). The examiner acknowledges what the **examples** define, but the specification discloses a "silica" abrasive and as stated before the recitation of "silica" in general would render obvious colloidal silica. Any argument based on what the examples show is

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considered a preferred embodiment and as is well known a **reference can be used for all it realistically teaches and is not limited to the disclosure in its preferred embodiments (i.e. examples)" See *In re Van Marter*, 144 USPQ 421. In addition section [0093] defines colloidal silica. Applicants appear to make a conclusion that the silica of the EP reference is referring to is fumed silica. The examiner cannot find sufficient, clear and convincing evidence that supports this conclusion. In addition, the claims do not limit the type of the silica. However, assuming further arguendo about the colloidal silica, the examiner has also made an obvious rejection being based on the combination of EP 1 020 501 in view of Liu et al. and/or Ina et al. (why the use of colloidal silica is obvious). Applicants have not clearly responded to this rejection, as applied.**

Applicants also argue that the declaration submitted on 2/28/06 establishes unexpected results. The examiner disagrees for the reasons defined at the end of this office action which clearly address the declaration.

With respect to rejection **(2)** above, applicants appear to argue that EP 836 only discloses fumed silica (see examples). The examiner acknowledges what the **examples** define, but the specification discloses a "silica" abrasive and as stated before the recitation of "silica" in general would render obvious colloidal silica. Any argument based on what the examples show is considered a preferred embodiment and as is well known a **reference can be used for all it realistically teaches and is not limited to the disclosure in its preferred embodiments (i.e. examples)" See *In re Van Marter*, 144 USPQ 421. Applicants appear to make a conclusion that the silica of the EP reference is referring to is fumed silica. The examiner cannot find**

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sufficient, clear and convincing evidence that supports this conclusion. In addition, the claims (specifically claim 8 which defines the use of silica) do not limit the type of the silica. However, assuming further arguendo about the colloidal silica, the examiner has also made an obvious rejection being based on the combination of EP 1 036 836 in view of Liu et al. and/or Ina et al. (why the use of colloidal silica is obvious). Applicants have not clearly responded to this rejection, as applied. Applicants also argue that this reference discloses a particle size ratio which is outside the scope of the instant invention. The examiner acknowledges this, however, this ratio is defined as a preferred ratio and the independent claim does not limit the invention to only this ratio. In view of this, the reference is not limited to this ratio because a reference can be used for all it realistically teaches and is not limited to the preferred embodiments.

Applicants also argue that the declaration submitted on 2/28/06 establishes unexpected results. The examiner disagrees for the reasons defined at the end of this office action which clearly address the declaration.

Both references teach particle sizes which are within the size limitations of the claimed invention, thus no clear distinction is seen to exist.

With respect to the declaration filed 2/28/06, in the experimental method, a polishing composition was prepared using the silica slurry shown in table 1 (kind 8 or 9)-see page 2 of the declaration. The examiner is unclear as to why this composition is used because the size of the silica (kind 8 and 9) correspond to a size of 200 nm and 170 nm, respectively, which are both outside the claimed upper limit of 120 nm. Applicants state that table 2 of the declaration shows polishing test results for the above composition. The examiner acknowledges these results but

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the examiner is unclear as to the reliance of said results because the silica size values are outside the claimed range. Applicants state that table 2 shows the dispersibility tests. The examiner acknowledges these results, however, only one silica kind (7) has a size within the claimed range, thus the examiner is unclear as to how this table would establish unexpected results for the claimed broad range. In addition, it is clearly established that compositions having other silica sizes outside the claimed range will not gel, thus the table does not establish criticality.

The declaration appears to make a statement that the from the results defined therein (and in the specification), unexpected results are defined for the claimed size of 20-130 nm. The examiner disagrees because the results are not commensurate in scope with the claimed subject matter. For instance, the results defined use specific contents, type of polymer particles and specific sizes of the polymer particles (factors) and the claims do not (i.e. they are much broader in scope than the specific criteria defined in the results). In addition, it is the examiners position that these factors can also effect the polishing performance, thus criticality for the claimed broad composition is not clearly established. In addition, the claims define a formula which depicts the size of the polymer particles, however, the declaration only relates to one polymer size (138 nm). The formula defined in the claims is not indicative of only this size, thus the size defined in the declaration is not commensurate in scope with the sizes obtained from the claimed formula. From the formula, using the upper limit of the silica size, the  $D_p$  can be 180 or less and using the lower limit of the silica size, the  $D_p$  can be 70 or less, thus it can be seen that the  $D_p$  can be any values less than 180. Finally, in as much as table 3 of the specification shows that using a  $D_p$  outside the claimed formula lowers the polishing rate, the table uses different polymer particles

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with different sizes and these different particles and different sizes can play a role in the polishing performance and applicants have not shown otherwise.

Although applicants have not clearly argued the claimed formula, EP 501 literally states that the size of the polymer particles are smaller than the size of the inorganic particles and from the sizes define by this reference, the claimed formula is meet.

Although EP 836 does not define this criteria, from the sizes defined by this reference, the claimed formula can be met.

In summary, applicants declaration and result in the specification are not commensurate in scope with the claims because the claims are much broader than the results defined.

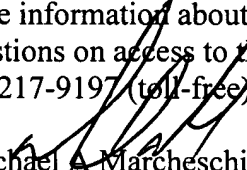
Applicants have not shown clear evidence of unexpected results with respect to the claimed inorganic size and formula define in the claims

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael A. Marcheschi whose telephone number is (571) 272-1374. The examiner can normally be reached on M-F (8:00-5:30) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on (571) 272-1233. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

5/06  
MM

  
Michael A. Marcheschi  
Primary Examiner  
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